

ABSTRACT OF THE DISCLOSURE

A process is disclosed for purifying a hydrofluoropropane of undesirable C₂-C₄ olefinic and C₁-C₄ saturated chlorinated impurities, comprising the steps of:
contacting a first mixture of hydrofluoropropane, olefinic impurity and saturated
5 chlorinated impurity with hydrogen and hydrogen fluoride concurrently in the
presence of a bifunctional catalyst, for example an alloy of gold and palladium
supported on carbon, capable of catalyzing hydrogenation and fluorination. During
the contacting step, olefinic impurity is converted to saturated hydrogenated
derivative and/or saturated hydrofluorinated derivative, and saturated chlorinated
10 impurity is converted to a saturated hydrodechlorinated derivative and/or saturated
fluorinated derivative. The hydrofluoropropane thus formed is substantially free of
both the olefinic and saturated chlorinated impurities and may be used as obtained or
subject to further purification steps such as distillation to remove the process
derivatives (e.g., hydrogenation, hydrodechlorination and hydrofluorination
15 derivatives) from the hydrofluoropropane.